Saskatchewan

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Agriculture Development Fund

FINAL REPORT

FUNDING FOR THE START-UP PHASE OF THE SASKATCHEWAN PLANT MATERIALS CENTER

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APPENDIX "B"

"Funding for the start-up phase of the Saskatchewan Plant Materials Center"
Project: 99000125

Progress and Final Report for completion of year one of a proposed 3 year project

Summary

The initial objectives were the obtaining of foundation seed of three U.S. public forage varieties with the potential to be re-sealed as foundation seed for primarily seed increase in this country plus forage evaluation on a field scale basis throughout potential areas of adaptation in Canada.

Added to this is the objective of producing seed free of serious contaminates often found in imported seed.

Considerable contaminates were removed during hand picking of the seed lots to be followed by intensive field roguing. Field preparation and seeding was completed after a number of weather related delays.

Seedings appear to have established.

Technical Report

Background:

This project is a co-operative joint venture between the Saskatchewan Crop Improvement Association and Mr. Dale Pocock. A system of Plant Material Centers has existed in the United States for many years and having a parallel infrastructure in Saskatchewan facilitation licensing agreements in Canada for U.S.D.A. public varieties. A recent agreement with Utah Crop Improvement Association allows for foundation seed of U.S. forage varieties grown in this country to be resealed as foundation seed. This is a first for Canada and follows 15 years of intensive effort and cost by Mr. Dale Pocock.

By accessing via agreement, foundation seed of U.S. varieties, the Plant Material Center will be able to test on a field scale basis on farms throughout Saskatchewan. The Center will retain royalties from seed produced and sold. It is hoped that at the end of this initiation phase the Center will have accessed a sufficient number of useful forage varieties from the U.S. and potentially other countries, that royalties will cover operation expenses and the Center will become self-sustaining.

Practical on-farm study via the affiliated Crop Improvement Association will help speed the adoption of usefull varieties.

Conversely, field scale testing at various soil types, conditions and environments will also identify any potential problems with varieties.

Objective:

The mandate of the Center is to identify and access, through agreement, U.S. public perennial and annual crop varieties that would have a potential use on Saskatchewan farms for grazing, hay or reclamation.

The Center will grow newly available cultivars to quarantine any noxious or undesirable weed species.

The Center would simultaneously release, under restricted production contracts, seed of promising cultivars to member seed growers and livestock producers for field scale grazing evaluation and seed multiplication.

Foundation seed lots were handpicked after being received from the Utah Crop Improvement Association (U.C.I.A.) during the winter of 1999 - 2000. Seed lots were 3 of varieties developed by U.S.D.A./ARS (Agriculture Research Service) and increased for distribution by U.C.I.A. at the University of Utah, Logan, Utah.

Initially, three varieties of different forage species (namely New Hy, Douglas and Vavilov) have each been planted on approximately 15 acres (for a total of 45 acres) for wide row low population stands to facilitate effective rouging for off-types and any contaminates possibly still present.

The seeding has been done in 2000 on land contributed by Sunnybank Seed Farm, a second generation operation dating back to 1919. And a continuous seed operation as a member of the Canadian Seed Growers Association since 1928. Land used for these specific seedings was on two year summer fallow. Establishment appears to have been achieved (note photos).

A forage production field day was held on June 28, 2000 (see attached poster) plus the hosting of a tour group from Inner Mongolia during July. One of that tour group's prime interests is in forage seed production.

Further development will not only include carrying to conclusion the three named U.S. public varieties but hopefully the investigation of other potential species not being limited to only the ARS Unit at Logan, Utah but screening material available at the more than two dozen other ARS Units throughout the U.S.

Also, work will continue with Canadian varieties especially encouraging Agriculture and Agri-Food Canada to make future releases which would involve more players with regard to seed increases and marketing. Already seed increases have been done at Sunnybank Seed of potential new Canadian releases involving forage species with promising attributes. The first seed harvest has occurred here of a smooth times meadow brome hybrid cross now registered as A.C. Knowles. Several increases for A.A.F.C. out of St. Foy, Quebec have been or are in the process of being done with plantings coming from small seed allocations from greenhouse collections - namely a smooth brome and a timothy.

As mentioned, the mandate, where possible, is to illustrate possible potential of the many different species that are available for grasses, legumes and forbs to benefit producers (both for forage and/or seed production), processors and government extension to offer numerous choices in a less exclusive atmosphere than that now occurs with many new releases and varieties in Canada.

Also, uniqueness is of great interest to many forage producers where problems exist and Canadian varieties only offer limited solutions. A prime example is the U.S. variety New Hy being a cross between quack and blue bunch wheatgrass. Canadian forage producers have been clamoring to test this specific variety with its potential salinity tolerance along with what appears to be many other excellent forage qualities for a number of years already. The major holdback has been in most areas producers don't want to also introduce the serious contaminates (bromey type weeds) that most of the present available seed contains.

Acknowledgement

Financial support from Saskatchewan Agriculture and Food was acknowledged during filming on sight for Prairie Farm Report episode "Forage Production" which covered the Douglas seeding along with numerous other forage topics.

A coroplast Saskatchewan Agriculture and Food sign is located at Dale Pocock's yard for use as a recognition display at Saskatchewan Plant Materials Center events.